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MIL-STD-909

31 August 1989

MILITARY STANDARD

SANITATION STANDARDS FOR FOOD STORAGE FACILITIES



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MIL-STD-909

DEPARTMENT OF DEFENSE
Washington, DC 20310-2300

Sanitation Standards for Food Storage Facilities

1. This Military Standard is approved for use by all Departments and Agencies of the Department of Defense.
2. The proponent agency of this regulation is the Office of the Surgeon General. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to Commandant, Academy of Health Sciences, U.S. Army ATTN: HSHA-IVS, Fort Sam Houston, TX 78234-6100, or use DD Form 1426 (Standardization Document Improvement Proposal) which is self-addressed appearing at the end of this document.

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14. ABSTRACT This standard establishes the general sanitary requirements for food warehouses. This standard is applicable to facilities whose primary purpose is to store food for the Armed Forces. This standard is intended to insure that food warehouses maintain clean, wholesome food products that are free from pest, chemical, microbiological, insect/rodent, and/or physical contamination and thus to aid in preventing the transmission of foodborne disease to members of the Armed Forces. This standard does not cover commissaries, commissary warehouse facilities, or areas used by individual military units for storing their combat rations.				
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1. SCOPE

1.1 Purpose. This standard establishes the general sanitary requirements for food warehouses.

1.2 Application. This standard is applicable to facilities whose primary purpose is to store food for the Armed Forces. Compliance with this standard is mandatory for the listing of food warehouses in the Directory of Sanitarily Approved Food Establishments for Armed Forces Procurement (the "Directory") as provided in AR 40-657/NAVSUPINST 4355.4/AFR 161-32/MCO P1011.31.

1.3 Objectives. This standard is intended to insure that food warehouses maintain clean, wholesome food products that are free from pest, chemical, microbiological, insect/rodent, and/or physical contamination and thus to aid in preventing the transmission of foodborne disease to members of the Armed Forces.

1.4 Limitations. This standard contains requirements for commercial, Government-owned, and leased facilities that store food for procurement and/or distribution within the military food distribution system. Troop Issue Subsistence Activities (TISA) are to be inspected using the provisions of this standard. However, it is not intended to cover commissaries, commissary warehouse facilities, or areas used by individual military units for storing their combat rations (i.e., unit basic loads). Nor, will this standard be used to determine the capability of an establishment to produce or furnish products or services that are in compliance with specifications or other purchase descriptions.

2. REFERENCED DOCUMENTS

2.1 Issues of documents. The following documents in effect on the date of invitation for bids or request for proposal, form a part of this standard to the extent specified herein.

LAWS AND REGULATIONS

Environmental Protection Agency (EPA)

Code of Federal Regulations (CFR), Title 40, Protection of the Environment, Parts 100 to 149

(Application for copies should be addressed to Superintendent of Public Documents, U.S. Government Printing Office, Washington, DC 20402.)

U.S. Department of Agriculture (USDA)

List of Proprietary Substances and Nonfood Compounds Authorized for Use Under USDA Inspection and Grading Programs

(Application for copies should be addressed to Superintendent of Public Documents, U.S. Government Printing Office, Washington, DC 20402.)

U.S. Department of Health and Human Services (HHS)

CFR, Title 21, Food and Drugs, Parts 100 to 169

(Application for copies should be addressed to Superintendent of Public Documents, U.S. Government Printing Office, Washington, DC 20402.)

U.S. Department of Labor

CFR, Title 29, Labor, Parts 1900 to 1910

(Application for copies should be addressed to the Superintendent of Public Documents, U.S. Government Printing Office, Washington, DC 20402.)

Military Publications (The provisions of these publications are applicable to U.S. Military operated or owned facilities.)

AR 30-18, Food Program, Army Troop Issue Subsistence Activity Operating Procedures

AR 40-5, Medical Services, Preventive Medicine

AR 40-657/NAVSUPINST 4355.4/AFR 161-32/MCO P10110.31, Medical Services, Veterinary/Medical Food Inspection

DOD 4145.19-R-1, Storage and Materials Handling

MIL-STD-904A, Guidelines for Detection, Evaluation, and Prevention of Pest Infestation of Subsistence

NAVMED P-5010, Manual of Naval Preventive Medicine

TB MED 530, Occupational and Environmental Health, Food Service Sanitation

(Copies of regulations and technical manuals may be obtained from normal military publication channels.)

2.2 Other publications. The following documents form a part of this standard to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply:

U.S. Department of Health and Human Services (HHS)

Bakeries, Beverage Plants, and Food Warehouses, Food and Drug Administration (FDA) Course Manual

(Application for copies should be addressed to Food and Drug Administration, State Training Branch (HFC-153), Room 12-86 Perklawn Building, 5600 Fishers Lane, Rockville, MD 20857.)

Illuminating Engineering Society (IES)

IES Lighting Handbook

(Application for copies should be addressed to Illuminating Engineering Society, 40 United Engineering Center, 345 East 47th Street, New York, NY 10017.)

Frozen Food Roundtable

Code of Recommended Practices for the Handling and Merchandising of Frozen Foods

(Application for copies should be addressed to Frozen Food Roundtable, 1055 Thomas Jefferson St., N.W., Washington, DC 20007.)

National Sanitation Foundation (NSF)

NSF Standard 37 for Air Curtains for Entranceways in Food Establishments

NSF Standard C-6 for Continuous Cloth Towel Dispensers

(Application for copies should be addressed to the National Sanitation Foundation, PO Box 1468, Ann Arbor, MI 48106.)

3. DEFINITIONS

3.1 Adequate. Methods that are needed to accomplish the intended purpose in keeping with accepted public health practices.

3.2 Adulterated. Adulterated shall mean the condition of a food (a) if it bears or contains any poisonous or deleterious substance in a quantity which may render it injurious to health; (b) if it bears or contains added poisonous or deleterious substance for which no safe tolerance has been officially established, or in excess of such tolerance if one has been established; (c) if it consists in whole or part of any filthy, putrid, or decomposed substance, or if it is otherwise unfit for human consumption; (d) if it is a raw agricultural commodity and it bears or contains a pesticide chemical which is unsafe; (e) if it has been processed, prepared, packed, or held under insanitary conditions, whereby it may have become contaminated with filth, or whereby it may have been rendered injurious to health; (f) if it is in whole or in part the product of a diseased animal, or an animal which had died otherwise than by slaughter; or (g) if its container is composed in whole, or in part, of any poisonous or deleterious substance which may render the contents injurious to health.

3.3 Cleaning. The physical removal of food residues, ingredients, and other soiling materials.

3.4 Contamination. The act or process of exposing the product to an adulterant or unwholesome material, live or dead insects, rodent feces, or rodent hairs.

3.5 Critical defect. An imperfection, practice, procedure or condition which may result in hazardous or unsafe conditions or which is likely to prevent the use or performance of an item or product as intended or cause the product to be injurious to health.

3.6 Defect. A product, practice, procedure, or condition at variance with specified requirements.

3.7 Food. Any raw, cooked, or processed edible substance, ice, beverage, or ingredient used or intended for use or sale in whole or in part for human consumption.

3.8 Plant. The building(s) or parts thereof, used for or in connection with the handling or storage of food.

3.9 Privy. A toilet area lacking means to discharge deposited matter into a sanitary sewer system or approved septic tank.

3.10 Product area. All areas where food is handled or stored.

3.11 Product zone (food contact surface). The surface of any equipment, utensils, or other material that contacts unpackaged food.

3.12 Sanitize. The adequate treatment of clean product zones by a process that is effective in destroying vegetative cells or pathogenic bacteria and substantially reducing numbers of other microorganisms. Such treatment shall not adversely affect the product and shall be safe for the consumer.

3.13 Toilet. A fixture maintained within a toilet room for the purpose of defecation and/or urination. The term "water closet" may be substituted for the word "toilet."

3.14 Toilet room. A room maintained within or on the premises of the warehouse that contains hand washing facilities, urinals and/or toilets (water closets) which automatically discharge deposited matter into a sanitary sewer system.

3.15 Urinal. A fixture maintained within a toilet room for the sole purpose of urination.

3.16 Warehouse. Any food storage facility that stores food for distribution in commercial and/or military food channels.

3.17 Wholesome. Conducive to good health and well-being.

4. GENERAL REQUIREMENTS

4.1 Sanitation Compliance Rating (SCR). Storage facilities that attain an SCR of 90 or more shall be recommended for listing in the Directory provided no critical defects, determined in accordance with 4.2.1, are recorded. Even when a critical defect is recorded, an SCR shall be computed; however, a facility with an uncorrected critical defect shall not be recommended for listing or retention in the Directory. Even when a critical defect is recorded, the inspection of the facility will be completed, with all deficiencies annotated.

4.2 Food Storage facility sanitation compliance checklist. The sanitary requirements are set forth in this military standard and are itemized as sanitation defects in column 1 of the checklist (see DD Form 2531). The individual defects are given assigned points in column 2 of the checklist. Some defects are designated as critical (see paragraph 3.5 for definition).

4.2.1 Recording of defects. The inspector designates as critical or numerically rates the observed sanitation defects. The numerical rating shall be within the range of the assigned defect points in column 2, and be recorded in column 3. Any defect entry and related defect points that are not applicable to the facility shall be deleted by lining out the nonapplicable defect and assigned defect points. Nonapplicable defect points shall be

subtracted from the total number of assigned defect points when totaling column 2. In instances where the inspector considers a defect to be of such magnitude as to constitute a serious health hazard, the numerical rating shall be deleted in column 2 and the word "critical" shall be recorded in columns 2 and 3. Defects designated as critical in the checklist may not be downgraded or assigned defect points. Numerical and critical defects shall be explained in the remarks section in sufficient detail to clearly describe the condition which resulted in the rating. Deficiencies not listed in the checklist that are observed and considered by the inspector to be of sufficient importance to affect the SCR will likewise be explained in this section.

4.2.2 Computation of the Sanitation Compliance Rating. If a critical defect is recorded, an SCR shall still be computed. To compute the SCR, columns 2 and 3 are totaled and used as shown in the following formula:

$$\frac{\text{Net total of column 2} - \text{Net total of column 3}}{\text{Net total of column 2}} \times 100 = \text{SCR}$$

The SCR assigned will be rounded to the nearest whole percent.

4.2.3 DD Form 2531 (Food Storage Facility Sanitation Compliance Checklist). A copy of this form is located at the back of this publication for local reproduction. The form will be locally reproduced on 8 1/2 x 11-inch paper.

5. DETAILED REQUIREMENTS

5.1 Premises. The premises shall present a clean and orderly appearance. They shall be well drained and free of environmental conditions and/or materials that are a nuisance or a hazard to sanitation. The area shall be free of weeds, debris, and unused equipment and materials. The area shall be free of waste materials that are stored or handled in such a manner as to be a potential health hazard. The presence of any harborage, attractant, and/or breeding area for insects, rodents, or birds shall not be permitted. If the facility grounds are bordered by grounds not under the warehouse operator's control, care must be exercised in the plant by inspection, extermination, or other means to effect exclusion of pests, dirt, and other filth that may be a source of food contamination.

5.1.1 Receiving/shipping docks. The approaches to receiving and shipping docks shall be kept clean and maintained to minimize dust. The docks shall be free of spilled food, broken boxes and pallets that are not being used. Areas under the docks shall be free of debris, open, and easily accessible for inspection. Overhead pipes and the pavement below pipes shall be free of bird droppings.

5.1.2 Garage, truck maintenance, and truck washing areas. Adjacent garage, truck maintenance, and truck washing areas shall be free of debris and spilled food. Storage areas shall be free of harborage for insects, rodents, birds, and other animals.

5.1.3 Trash dumpsters/compactors. The areas around trash dumpsters/compactors and/or other trash receptacles used to contain trash shall be free of spilled food and rodent activity. Trash receptacles shall be emptied, replaced, and cleaned as needed to maintain them and adjacent areas in a sanitarily acceptable manner. To prevent attracting insects, birds, rodents, and other animals, trash receptacles shall be closed when not in use.

5.2 Food. All food destined for Department of Defense (DOD) must be obtained from approved sources as required by AR 40-657/NAVSUPINST 4355.4/AFR 161-32/MCO P10110.31. At those food warehouses where U.S. military or other recognized federal inspection personnel are not assigned, designated facility personnel shall inspect all food shipments for possible contaminants. A definite inspection procedure shall be established by the storage facility and a sufficient number of cases, bags, bales, boxes, and other containers shall be examined from each shipment to satisfy the facilities' management that incoming items are acceptable. Privately owned food that shows evidence of adulteration, contamination, active insect infestation, or any condition that from a public health or aesthetic standpoint renders the product unfit for human consumption, shall not be stored in a contiguous area with food destined for or owned by DOD.

5.3 Construction of building. The building shall be large enough to accommodate the operation without hampering sanitary practices. Floors, walls, and ceilings shall be constructed of materials that can readily be kept clean and in good repair. All expansion joints, especially along the floor-wall juncture, shall contain filler material that remains pliable enough to effect a good seal. Ceilings shall be free of peeling paint and condensates. The exterior openings, including doors, windows, conveyor openings, pipe openings, and vents, shall be clean and in good repair. Walls up to two feet from ground level shall be free of holes or other potential entry sites for rodents. Upper areas of walls and doorways shall be free of bird droppings or nests. Window ledges (both inside and outside) shall be free of evidence of storage pests and bird droppings. All overhead and wall doors shall have appropriate tightness when closed. Spaces of 1/4" or larger shall be repaired to prevent the entrance of rodents. When doors are not in use at the present time, they shall be closed or an effective rodent barrier will be employed. When practicable, exterior openings shall be equipped with screens or other effective means to prevent the entrance of insects, birds, rodents and/or other animals. Where the screening of openings is impracticable, flying insect entry may be controlled by air curtains or overlapping plastic strips

large enough to cover the total door opening. Air curtains shall comply with the NSF Standard No. 37 for Air Curtains for Entranceways in Food Establishments. Screen doors shall open outward and be self-closing. Food storage rooms shall not open directly into barns, stables, living quarters, toilets, garages, or maintenance shops.

5.3.1 Railroad siding. When railroad sidings run inside the food warehouse, the closing doors through which the tracks run shall be tightly sealed when not in use. A block or plate attached to the door to fill the gap between the door and rail tracks, subterranean seal, or other effective means to prevent insect and rodent entry when the doors are not in use, shall be used.

5.4 Lighting. Each room shall have sufficient natural or artificial lighting to permit necessary functions such as order picking, clean-up, and inspection. Burned out lights shall be replaced and non-functional lights repaired. Lighting intensities shall conform to the intensities established in the latest edition of the IES Lighting Handbook. Where necessary to protect food, lights shall be shatter proof or equipped with protective shields. Outside lighting shall be yellow in color to prevent attraction of insects.

5.5 Ventilation and humidity. Humidity shall be regulated in conjunction with ventilation or air movement to control condensation, objectionable odors, and mold growth on ceilings and walls in all areas. Air for ventilation shall be adequately filtered and directed outward when appropriate to prevent contamination. Ventilation systems shall be kept clean and maintained in good repair.

5.6 Water supply. The water supply shall be readily accessible, of a sufficient quantity, and have an acceptable sanitary quality as established in 40 CFR; or military service regulations; or acceptable host country drinking water standards. The water heater shall be of such capacity so as to be able to furnish a sufficient supply of hot water to meet the storage facility's cleaning and sanitizing requirements at all times throughout a working day. There shall be no cross-connection between potable and nonpotable lines. There shall be protection against back-siphonage. There shall be effective protection of wells from contamination by surface drainage or floods. Bacteriological examination and water test results shall be maintained at the plant to show the water supply has been approved by Federal, State, or local health authorities within the past six months. If Federal, State, or local health authorities do not have such evidence of water potability, applicable military service regulations governing potable water supplies will be followed to approve the water supply(ies). Within the Continental United States (CONUS), Hawaii, or Alaska a water supply approved by a Federal, State, or

local health authority will be considered potable, if the samples drawn for testing were taken from the faucets located in the establishment. Nonpotable water outlets, if present, shall be located and identified by color codes and labeled nonpotable to preclude the use of nonpotable water for other than the purposes designated. The color code used shall be readily identifiable, prominently displayed, and clearly understood by plant personnel. The use of nonpotable water is permitted for the flushing of urinals and commodes, for boilers, and for such other similar uses provided it does not directly, nor indirectly, contact food, packaging materials, product area, or personnel handling food.

5.7 Ice. Ice shall be made from a supply of potable water which meets the requirements of paragraph 5.2 and 5.6. It shall be manufactured, handled, stored, and used in a sanitary manner.

5.8 Disposal of wastes. Liquid wastes shall be conveyed to a public sewer system through inclosed piping or shall be disposed of by another sanitary sewage system approved by State, local, or host country health authorities. Floor drains shall be functional and properly trapped. Dry and wet product waste shall be placed in suitable covered receptacles conveniently located throughout the storage facility. These containers shall be clean and odor-free to prevent attraction of insects or rodents.

5.9 Toilet/dressing room and handwashing facilities. A sufficient number of sanitary toilets shall be provided as follows:

<u>Number of employees of same sex</u>	<u>Minimum number of toilets required*</u>
1-15	1
16-35	2
36-55	3
56-80	4
81-110	5
111-150	6
Over 150	1 additional fixture for each additional 40 employees

*Where toilets will not be used by women, urinals may be provided instead of toilets, except that the number of toilets in such cases shall not be reduced to less than two-thirds of the minimum specified.

Toilet rooms shall be conveniently located, constructed of materials that can be easily and satisfactorily cleaned and sanitized, adequately lighted, and separately vented to the outside. Where used, odor masking devices shall not be used as an attempt to conceal the effects of poor sanitation and/or ventilation.

Toilet rooms shall be constructed so that they do not open directly into rooms or areas where components or products are inspected or stored. The doors shall be tight-fitting and self-closing. A sign directing employees to wash their hands before returning to work shall be conspicuously posted in all toilet rooms, privies, break, and product handling areas. Handwashing signs shall be multilingual as appropriate. Handwashing facilities, must include: running potable water through a mixing valve at a suitable temperature for handwashing, soap (liquid or powder), soap dispenser, sanitary single-service towels or clean individual sections of continuous cloth toweling, or hot air blower-type hand dryers. Handwashing facilities will be conveniently located in the toilet rooms, food handling, and inspection areas. Continuous cloth towel dispensers shall comply with the NSF Standard No. C-6 for Continuous Cloth Towel Dispensers. Toilet rooms and fixtures, privies, dressing rooms, and handwashing facilities will be maintained in a clean, orderly manner. There shall be a sanitary waste receptacle in each toilet room. Toilet/dressing rooms shall not be used for storage of cleaning supplies and equipment. Privies shall be convenient but separate from food handling or storage buildings, of a sanitary type, location, construction, and adequately lighted. Handwashing facilities will be provided. Each employee shall be furnished a locker or other suitable facility, and lockers and dressing rooms shall be kept clean and orderly.

5.10 Construction, repair, and maintenance of equipment and utensils.

Equipment and utensils shall be designed, constructed, and used to preclude the adulteration of food with toxic lubricants, fuel, metal fragments, contaminated water, or any other contaminants. Lubricants used on contact surfaces of product-handling equipment shall be edible and nontoxic and shall be used sparingly in a manner that prevents contamination of food or food contact surfaces. The only lubricants authorized for use are those listed in the USDA publication, "List of Proprietary Substances and Nonfood Compounds Authorized for Use Under USDA Inspection and Grading Programs" or approved by the Major Army Command (MACOM) Surgeon.

5.11 Cleaning and sanitizing treatment. The methods used for cleaning shall not contaminate nor adulterate the product. All products shall be moved sufficiently away or otherwise protected prior to the start of cleaning to avoid contamination or adulteration by splashing. Where applicable, all multiple-service containers, equipment, and utensils used in handling, storing, or transporting of exposed product shall be disassembled, cleaned thoroughly, and sanitized after use. Chemicals used in cleaning and sanitizing treatments shall be properly labeled and stored. Cleaning and sanitizing chemicals shall be used as prescribed by the manufacturer's recommendation. The only chemical compounds authorized for use are those listed in the USDA publication, "List of Proprietary Substances and Nonfood Compounds Authorized for Use Under USDA Inspection and Grading Programs." Similar products that are approved by other Federal agencies such as the FDA and EPA can be used provided it can be determined (whether by approved labels on the product or other means) that the products are in fact approved by a recognized Federal Health Agency or in oversea areas by the MACOM Surgeon.

When chemical sanitizers are used, a test kit, other devices, or approved method that accurately measures the correct concentration of the solution shall be available and used. If water is used as the sanitizer, it must be not less than 170°F (77°C) with at least 30 seconds contact time. All rooms and areas used to receive, inspect, store, or for other activities that involve food handling, shall be maintained in a clean, acceptable manner to preclude the possibility of microbiological, chemical, or physical contamination.

5.12 Methods. Methods used in receiving, handling, storage, and shipping shall be conducted in a manner so as to prevent contamination or adulteration and shall not contribute to deterioration of the product.

5.13 Refrigeration and freezing. Refrigerated and freezer rooms shall be free from objectionable odors and from mold. They shall be maintained in good repair and in a clean condition. Refrigeration and freezer units shall be capable of maintaining temperatures and humidities necessary for the preservation of the foods being stored. Refrigerated storage shall be maintained at or below 40°F (4°C) ambient air temperature, and freezer storage at or below 0°F (-18°C) unless higher temperature can be documented as acceptable. Items requiring refrigerated or frozen storage shall not be allowed to remain on the receiving or shipping docks any longer than necessary. Refrigerated and frozen storage rooms or units shall be equipped with a thermometer, graduated in not more than 2°F (1°C) divisions accurate to $\pm 2^{\circ}\text{F}$ ($\pm 1^{\circ}\text{C}$) throughout the specified scale range, and placed so as to indicate a representative air temperature. The walls and ceilings of refrigerated and freezer rooms shall be free of mold growth. Fans and coils of refrigeration/freeze units shall be free of excessive dust, dirt, and ice buildup. Drip pans under the units or coils shall be properly drained and not plugged with debris or slime.

5.14 Storage facilities. Storage facilities shall be clean and in good repair. Semi-perishable storage areas shall have a thermometer with log noting daily temperatures. Shelves, cabinets, and dunnage or pallets shall be used where necessary to protect materials from contamination. They shall be free of any evidence of insect or rodent infestation. Pallets located away from the warehouse center aisle shall be free of rodent droppings and areas around cases with forklift damage shall be free of evidence of rodent or other pest infestation. There shall be evidence that products damaged in the warehouse, due to forklift or other handling processes, are reported immediately to the warehouse manager noting the exact location of the products. Appropriate placards shall be displayed for each storage location where there is a change in product condition or inspection test date. Toxic chemicals shall be stored away from food and food packaging and packing materials.

5.14.1 Wall clearance. Stored products shall be at least 18 inches away from the wall and a minimum of 4 inches up off the floor. A minimum 2-foot clearance will be maintained between the top of the stack and the ceiling. Aisles will be maintained between every second line of palletized, non-infestable product. Adequate inspection aisles shall be present between every three rows of infestable materials. In those facilities with pallet racking shelving running parallel to walls, there must be at least 6 inches wall clearance and 12 inches floor clearance to the bottom of the bottom support bar.

5.14.2 Recoup area. The recoup area shall be physically separated from all other product storage areas. The area shall be cleaned daily to maintain it in a clean and sanitarily acceptable manner. Salvageable products will be physically isolated from unsalvageable products to prevent cross-contamination.

5.15 Control of insects, birds, rodents, and/or other animals. Insects, birds, rodents, and other animals shall be excluded from the storage facility by effective control measures. Operations or procedures which produce rodent harborage or insect breeding areas are prohibited. The only insecticides and rodenticides used for control shall be those which appear in the USDA publication, "List of Proprietary Substances and Nonfood Compounds Authorized for Use Under USDA Inspection and Grading Programs," or compounds that have EPA registered labels approving applications within food establishments. In oversea areas, compounds will be approved by the MACOM Surgeon. These products shall be controlled and applied only by professional and/or appropriately trained pesticide applicator personnel, and used as prescribed by label.

5.15.1 Pest Control Log. A pest control log shall be maintained in the warehouse and used by food inspectors (record date, location, and description of conditions which indicates the presence of pests or conditions that can attract them) and pest control personnel (record date, description of service and exact location where pest control service was performed).

5.15.2 Rodent bait stations. Rodent bait stations shall be of metal, plastic, or other durable material. The station shall be identified with a warning such as "Danger-Rodent Poison." Rodent bait stations shall be sealed to prevent tampering, and be checked to ensure they contain fresh appearing bait that is free of insect contamination. Rodent bait stations or glue boards shall be located close to doorways or wall openings. One side of the station or board shall be in complete contact with the wall. A service log for the bait stations shall be attached on the inside of the lid or maintained elsewhere in the storage facility where it can be readily reviewed. All bait stations, traps, and glueboards will be numbered. The facility will maintain a diagram of each rodent control device by number. Glueboards, if used, shall be changed frequently enough to prevent large accumulations of rodents, insects, dirt, and debris.

5.16 Vehicle and Transportation facilities. Vehicle and transportation facilities shall be constructed and operated to protect contents from contamination and deterioration. They shall be kept clean and in good repair. The load hauling area of all vehicles used for transporting food shall be covered. When canvas-covered vehicles are used, the rear flap shall be lowered and secured. Completely inclosed or refrigerated vehicles are required for transporting perishable foods where dust or a temperature rise above recommended levels, or other detrimental effects are encountered. All vehicles used to move subsistence items must be provided with pallets or duckboards that will elevate the supplies three or four inches above the bed of the truck. Vehicles used to transport food must not be used concurrently to carry trash, garbage, petroleum products, or other materials that might contaminate subsistence supplies.

5.16.1 Shipping Vans. Before on-loading and during off-loading, shipping Vans shall be checked for insects, using a flashlight in corners and along walls.

5.17 Cleanliness and health of personnel.

5.17.1 Cleanliness. All employees shall wash their hands thoroughly with soap and water in an adequate hand-washing facility before starting work, upon returning to work from breaks, after using toilet facilities, after eating, smoking, and all other times when the hands may have become soiled or contaminated. Where unpackaged food is manipulated by hand, personnel shall not wear any jewelry or fingernail polish with the exception of plain wedding bands and emergency medical bracelets. Gloves, when appropriate for use, shall be intact, sanitary, and impermeable. Eating, expectorating, chewing gum, drinking beverages, or using tobacco in any form shall be prohibited in areas where food products or supplies are handled, stored, or in areas used for washing equipment or utensils. All persons engaged in food handling shall wear clean outer garments suitable for the work being performed. Hair nets, caps, beard nets, or other effective hair restraints shall be worn when working with unpackaged food and food contact surfaces. Employees' personal effects shall be stored in designated areas, away from food products being handled or stored.

5.17.2 Health. No person known to be infected with, or a carrier of, a communicable disease shall be permitted in any room or compartment where food products are handled. No person who has a discharging or infected wound, sore, or lesion on hands, arms, or other exposed portion of the body shall work in any area or in any capacity resulting in contact with the handling of products, containers, or equipment. Where required, employees will have currently valid health certificates kept on file at the plant office. Storage facility personnel shall receive appropriate training in proper food handling techniques, disease prevention, and food protection principles and will be aware of the danger of poor personal hygiene and insanitary practices.

MIL-STD-909

Custodians:

Army - GL
Navy - SA
Air Force - 50

Preparing activity:

Army - GL

Project No.: 89GP-0130

FOOD STORAGE FACILITY SANITATION COMPLIANCE CHECKLIST

(This appendix is an integral part of MIL-STD-909 and its application is mandatory.)

1. DATE OF INSPECTION (YYMMDD)

2. FACILITY INSPECTED

a. NAME	b. ADDRESS
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3. FACILITY OWNER

a. NAME OF COMPANY OR INDIVIDUAL	b. TELEPHONE NUMBER
----------------------------------	---------------------

4. ACCOMPANYING INDIVIDUAL

a. NAME	b. TITLE
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SANITATION DEFECTS (1)

ASSIGNED
DEFECT
POINTS
(2)

INSPECTOR'S
DEFECT
POINTS
(3)

5. PREMISES

a. Not clean or well organized	3
b. Not well drained	3
c. Not free from nuisances and sources of contamination	5
d. Approaches to receiving and shipping docks not clean or not maintained to minimize dust	5
e. Garage, truck maintenance, and/or truck washing area does not meet requirements	5
f. Trash dumpsters, receptacles or compactors do not meet requirements	5

6. FOOD

a. Food destined for DoD not obtained from approved source or not properly segregated from nonapproved food	Critical
b. Not inspected upon receipt and at other times as needed for determination of adulteration, contamination, or infestation	5
c. Adulterated, contaminated or pest infested food is accepted for storage and distribution	Critical
d. When used, single-service articles and packaging materials not protected	4

7. CONSTRUCTION OF BUILDING

a. Not large enough to accommodate the operation without hampering sanitary practices	4
b. Walls, floors, and ceilings not in good repair or not constructed of materials that can easily be kept clean	4
c. Unnecessary clutter of wiring, pipes, hangers, and ducts	4
d. Exterior openings not clean or not in good repair	4
e. Exterior openings do not prevent the entrance of insects, birds, rodents, or other pests	4
f. Air curtains, if used, not in compliance with NSF standards	3
g. Screen doors not outward opening and not self-closing	3
h. Storage area opens directly into living quarters, garages, or maintenance shops	4
i. Expansion joints do not meet requirements	5
j. Window ledges not clean or not free of evidence of storage pests	5
k. Openings / spaces not sealed where appropriate to prevent the entrance of insects or rodents	5
l. Doorways not closed when not being used at the present time	3
m. Upper areas of walls and doorways not free of bird droppings or nests	5
n. Walls up to 2 feet from ground level not free of holes or other potential entry sites for rodents	5

8. LIGHTING

a. Insufficient lighting	2
b. Lights in product area not equipped with shields where appropriate	5
c. Burned out lights not replaced or nonfunctional lights not repaired as appropriate	5

9. VENTILATION AND HUMIDITY

a. Insufficient control of ventilation or air movement	5
b. Mold present on walls or ceilings	5
c. Accumulation of condensates on walls or product	5
d. Ventilation system not clean and in good repair	5
e. Air not filtered and/or directed outward where required	5

10. WATER SUPPLY

a. Not easily accessible	4
b. Inadequate in quantity	5
c. Undiminished supply of hot water not available	5
d. Cross-connection exists between potable and nonpotable water supply or sewage	Critical
e. Lacks protection against possible back-siphonage	5
f. Potability certificate not current, if available	5

FOOD STORAGE FACILITY SANITATION COMPLIANCE CHECKLIST

SANITATION DEFECTS (1)	ASSESSED DEFECT POINTS (2)	IMMEDIATE DEFECT POINTS (3)
10. WATER SUPPLY (Continued)		
g. Potable water supply found to be nonpotable	Critical	
h. Nonpotable water outlets not identified by prominently displayed color code and labels	5	
i. Wells not effectively protected from contamination by surface drainage or floods	Critical	
11. ICE		
a. Not made from potable water	5	
b. Not manufactured, handled, stored, or used in a sanitary manner	5	
12. DISPOSAL OF WASTES		
a. Liquid wastes not disposed of in a sanitary manner	5	
b. Floor drains not functional or properly trapped	3	
c. Waste not collected in properly covered containers or not disposed of at required intervals or in a sanitary manner	4	
13. TOILET / DRESSING ROOM AND HANDWASHING FACILITIES		
a. Sufficient number of toilets or privies not provided	5	
b. Toilet rooms or privies not conveniently located	4	
c. Toilet rooms constructed of materials that are not easily cleaned	4	
d. Toilet rooms or privies not adequately lighted	2	
e. Toilet rooms not separately vented to the outside	5	
f. Toilet rooms open directly into product area	3	
g. Doors not self-closing and tight-fitting	3	
h. Handwashing sign absent	3	
i. Water at suitable temperature not available; or, mixing valve, soap, soap dispenser, appropriate hand-drying facilities, not conveniently located	5	
j. Sanitary waste receptacles not present in toilet rooms	3	
k. Toilet / dressing rooms, privies, or handwashing facilities not maintained in a clean, orderly fashion	4	
l. Toilet rooms used for storage of cleaning equipment	3	
m. Privies not separate from the building	Critical	
n. Privies not of sanitary type, location, or construction	5	
o. Each employee not furnished a locker or other suitable facility	5	
p. Continuous cloth towel dispensers, if present, not in compliance with NSF Standards	3	
14. CONSTRUCTION AND REPAIR OF EQUIPMENT AND UTENSILS		
a. Design, construction, and use of equipment and utensils does not preclude the adulteration of food	Critical	
b. Equipment and / or utensils not clean or not in good repair	5	
c. Equipment not easily accessible for cleaning, maintenance, or inspection	5	
d. Prohibited lubricants used on food contact surfaces	Critical	
e. Lubricants not used in a manner that prevents contamination of food or food contact surfaces	5	
f. Pallets, storage racks, or shelves do not meet requirements	5	
15. CLEANING AND SANITIZING TREATMENT		
a. Cleaning or sanitizing methods do not prevent product contamination or adulteration	Critical	
b. Food not moved or otherwise protected prior to equipment/area cleaning to avoid contamination or adulteration	Critical	
c. Multiservice containers, equipment, and utensils not cleaned and sanitized after use	Critical	
d. Cleaning and sanitizing chemicals not properly labeled or stored	5	
e. Unauthorized chemical compounds used for cleaning and sanitizing	Critical	
f. Hot water used as sanitizer less than 170° F (99°C) and / or contact time less than 30 seconds	Critical	
g. Rooms and areas not maintained in a clean manner	5	
h. Test kit, other device, or approved method not used when chemical sanitizers are utilized	5	
i. Cleaning and sanitizing chemicals not used as prescribed by manufacturer's recommendations	Critical	
16. METHODS		
a. Methods permit contamination / adulteration of product	Critical	
b. Methods permit deterioration of product	5	
17. REFRIGERATION AND FREEZING		
a. Refrigerated or freezer rooms not free of ice buildup, objectionable odors, or mold	5	
b. Refrigerated or freezer rooms not maintained at proper temperatures and humidities	Critical	
c. Refrigerated or freezer rooms not equipped with suitable thermometers	5	
d. Items requiring refrigerated or frozen storage not properly handled	Critical	
e. Drip pans, fans, and coils of refrigeration / freezer units not maintained properly	5	
f. Freezing equipment or procedures do not meet requirements	Critical	

FOOD STORAGE FACILITY SANITATION COMPLIANCE CHECKLIST

SANITATION DEFECTS (1)	ASSIGNED DEFECT POINTS (2)	INSPECTOR'S DEFECT POINTS (3)
18. STORING AND STORAGE FACILITIES		
a. Storage facilities not clean or in good repair	3	
b. Storage methods do not minimize deterioration or contamination	5	
c. Shelves, cabinets, or Dunnage not used where necessary to prevent contamination or deterioration	5	
d. Wall, floor, and ceiling clearance not provided as appropriate	5	
e. Adequate inspection aisles not provided	5	
f. Semi-perishable storage area does not have thermometer with log noting daily temperatures	5	
g. Damaged products not properly reported	5	
h. Area around cases with forklift damage shows evidence of rodent or other pest infestation	5	
i. Pallets away from warehouse center aisle not free of rodent droppings	5	
j. Placards not displayed where appropriate	5	
k. Toxic chemicals or other potential adulterants not stored away from food and food packaging or packing materials	Critical	
l. Recoup area not physically separated from other product areas	Critical	
m. Recoup methods do not prevent contamination of salvageable products	Critical	
19. CONTROL OF INSECTS, BIRDS, RODENTS, AND / OR OTHER PESTS		
a. Presence of insects, birds, rodents, and/or other pests or signs of these pests in production area	Critical	
b. Presence of insects, birds, rodents other pests or signs of them in nonproduction area	5	
c. Effective measures for control of insects, birds, rodents, and/or other pests not maintained at all times	3	
d. Pesticides not controlled or applied by trained personnel	Critical	
e. Unauthorized insecticides / rodenticides used	Critical	
f. Insecticides or rodenticides not used as prescribed by label directions	Critical	
g. Insecticides or rodenticides are handled or stored in an unsafe manner	Critical	
h. Rodent bait station(s) not of metal, plastic, other durable construction, or appear not to have been recently checked by pest control	5	
i. Rodent bait station(s) not identified with appropriate warning	Critical	
j. Rodent bait station(s) not sealed to prevent tampering	Critical	
k. Insect / rodent harborage present	4	
l. Rodent bait station(s) or glue boards not located close to doorways or openings in walls	5	
m. One side of bait station or glue board not completely against the wall	5	
n. Area of rodent bait station(s) and glue boards not free of rodent droppings	5	
o. Contents of rodent-bait station(s) caked, moldy, not fresh-appearing, or not free of insect contamination	5	
p. Pest control log or location system not maintained for bait station(s) and glue boards	5	
q. Glue boards and bait stations(s) not free of dirt, debris, or insects	5	
20. VEHICLE AND TRANSPORTATION FACILITIES		
a. Not constructed, equipped, or operated to protect contents from contamination or deterioration	Critical	
b. Not properly maintained or not clean	3	
c. Shipping Vans not checked for insects as required	5	
21. CLEANLINESS AND HEALTH OF PERSONNEL		
a. Employees not washing hands after possible contamination	Critical	
b. Failure of employees to be hygienically clean	4	
c. Personnel not prohibited from eating, smoking, chewing gum, tobacco, or expectorating in food storage or food handling areas	3	
d. Fingernail polish or unauthorized jewelry worn by personnel handling unpackaged food	3	
e. Employees not wearing garments / hair restraints suitable for work being performed	5	
f. Storage of employee's personal effects in production area	3	
g. Employees affected with or a carrier of a communicable or infectious disease not excluded from product areas	Critical	
h. Warehouse employees that have an infectious wound, sore, or lesion on hands, arms, or other exposed parts of the body not excluded from product area	Critical	
i. Prescribed medical examinations of personnel not being made and / or records of such not available	4	
j. Warehouse personnel not instructed in acceptable hygienic practices and proper sanitary rules of food handling	Critical	
22. FORMULA		
$SCR = \frac{\text{Net Total of Column 2} - \text{Net Total of Column 3}}{\text{Net Total of Column 2}} \times 100$	TOTALS MINUS NONAPPLICABLE DEFECT POINTS NET TOTAL DEFECT POINTS	415 - -
23a SCR COMPUTATIONS	b. SCR ASSIGNED	c. NUMBER OF CRITICAL DEFECTS

FOOD STORAGE FACILITY SANITATION COMPLIANCE CHECKLIST

24. OTHER REGULATORY AGENCIES CONCERNED WITH SANITATION OF THIS ESTABLISHMENT (Record the agency, date, and results of last inspection.)

25. METHODOLOGY SECTION (Record narrative information describing the storage facility, premises, equipment, and procedures.)

FOOD STORAGE FACILITY SANITATION COMPLIANCE CHECKLIST

26. REMARKS/RECOMMENDATIONS (Key discrepancies noted to the subparagraph numbers above.)

27. INSPECTOR		
a TYPED NAME	b TITLE	
c SIGNATURE	d GRADE	e DATE SIGNED (YYMMDD)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL
 (See Instructions - Reverse Side)

1. DOCUMENT NUMBER
 MIL-STD-909

2. NAME OF SUBMITTING ORGANIZATION

3. ADDRESS (MAIL, CITY, STATE, ZIP CODE)

4. DOCUMENT TITLE
 Sanitation Standards For Food Storage Facilities

5. TYPE OF ORGANIZATION (check one)

VENDOR

USER

MANUFACTURER

OTHER (Specify): _____

6. PROBLEM AREAS

a. Problem Number and wording:

b. Recommended wording:

c. Reason/Reference for Recommendation:

6. REMARKS

7. NAME OF SUBMITTER (Last, First, MI) - Optional

8. MAILING ADDRESS (MAIL, CITY, STATE, ZIP CODE) - Optional

9. WORK TELEPHONE NUMBER (Include Area Code) - Optional

10. DATE OF SUBMISSION (YYMMDD)